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# REVIEW OF THE GENUS *STREPHONEMA* (COMBRETACEAE)<sup>1</sup>

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## ABSTRACT

The genus *Strephonema* (Combretaceae) comprises three species restricted to the wet tropical forests of West Africa (*S. pseudocola*) and Central Africa (*S. mannii* and *S. sericeum*). A possible fourth species from Central Africa cannot as yet be distinguished for want of flowers. The presence of a simple receptacle that cannot be divided into a distinct upper and lower part, and of a large fruit with the remnants of the flower located near the base rather than at the top, makes it possible to distinguish this genus from all other Combretaceae. *Strephonema* species are small to dominant forest-trees; *S. mannii* is only known from regular inundated forests. A key to the species is presented, along with brief descriptions and complete synonymy. Several lectotypes are designated.

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Although the genus *Strephonema* comprises only three species, preparing the treatment for the *Flore du Gabon* was at times a challenging task. In particular, material placed here tentatively under *S. sericeum* is very variable in indumentum and leaf shape, and it is difficult to distinguish species when there are no flowers. Fruits were sometimes available, but there is little variation in shape and size of the fruits among the species.

Morphologically, *Strephonema* exhibits more putatively primitive characters than any other genus in the family. All *Strephonema* flowers are bisexual. The receptacle does not close completely around the ovary as in all other Combretaceae; instead, the ovary is placed on the inside and at the bottom of the more or less cup-shaped receptacle, thus making it visible from outside. This means that if the remnants of the calyx, petals, and stamens persist in fruit they are located near its base rather than at the top of the fruit, as in all other genera. Furthermore, *Strephonema* fruits are not provided with wings or other dispersal adaptations common elsewhere in Combretaceae.

*Strephonema* was first described in 1867 as a new genus of Lythraceae, but Engler & Diels (1900) clearly placed it in Combretaceae. The most comprehensive taxonomic works on *Strephonema* to date are the treatments for the Floras of Zaire and Cameroun by Liben (1968, 1983). In both cases Liben incorrectly applied the name *S. pseudocola* to some of the fruiting or sterile collections from these areas. This error was copied by Vivien & Faure (1985: 174, 175). *Strephonema pseudocola* was described from Ivory Coast, and it is the only

species of this genus growing west of Nigeria, easily recognized by flowers that are much larger than those of the other species. In Cameroun and Gabon several flowering collections have been made of *S. mannii* and *S. sericeum* but none of *S. pseudocola*. For this reason and because the other species are better known today, one of the conclusions of this publication is that *S. pseudocola* does not occur east of Ghana. The specimens from central Africa that were formerly believed to belong to *S. pseudocola* are now identified as *S. mannii* or *S. sericeum*.

## SYSTEMATICS

***Strephonema*** Hook. f., in Benth. & Hook., Gen. Pl. 1: 782. 1867. TYPE: *Strephonema mannii* Hook. f. (lectotype, designated here).

Large or small trees. Leaves alternate, simple and entire, often with glands on the margins (glands next to the petiole stalked), venation pinnate, at least the upper main lateral nerves anastomosing a few millimeters from the leaf margin, tertiary veins semi-parallel and almost perpendicular to the midrib. Flowers 5-merous, with a distinct pedicel. Receptacle broadly infundibuliform to campanulate. Petals ciliate but otherwise glabrous. Stamens 10, bi-seriate; filaments glabrous; anthers often septate. One semi-superior ovary with two ovules and one style. Fruit one-seeded, resembling a large gall, subglobose, sessile, succulent, glabrous, receptacle usually still evident on the base of the fruit; seed with two succulent and  $\pm$  planoconvex cotyledons, without endosperm. Seedling with hypogeal germi-

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nation, cotyledons remaining in the fruit, first leaves scalelike.

A genus of three or possibly four species restricted to humid tropical Africa.

KEY TO THE SPECIES OF *STREPHONEMA*

- 1a. Petals 5–7 mm long; in West Africa from Guinea to Ghana ..... *S. pseudocola*  
 1b. Petals 3–4 mm long; in Nigeria and Central Africa.  
 2a. Inflorescence and flowers almost glabrous, young leaves inconspicuously hairy; inflorescence rachis always shorter than 2.5 cm and usually ca. 1 cm long; tree always growing in marshy places ..... *S. mannii*  
 2b. Inflorescence, flowers, and young leaves conspicuously hairy; inflorescence rachis usually much longer than 2.5 cm; trees rarely growing in marshy places ..... *S. sericeum*

***Strephonema mannii*** Hook. f., in Benth. & Hook., Gen. Pl. 1: 782. 1867. TYPE: Nigeria. Old Calabar (fl. Feb.), *Mann 2293* (lectotype, designated here, K; fragment: BR).

*Strephonema tessmannii* Mildbraed, Engl. Bot. Jahrb. 51: 357. 1914. TYPE: Cameroun. Campo, Bebai, road to Olanga (fl. Oct.), *Tessmann 779* (syntype, B destroyed; lectotype, designated here, K); Akonangi, road to Ngun (fl. Apr.), *Tessmann 999* (syntype, B destroyed).

*Strephonema tessmannii* Mildbraed var. *micranthum* Mildbraed, Engl. Bot. Jahrb. 51: 358. 1914. TYPE: Cameroun. Campo, Bebai, road to Nsesong (fl. Feb.), *Tessmann 843* (holotype, B destroyed). NEOTYPE: Cameroun. Just E of Kribi (fl. June), *Bos 4895* (neotype, WAG; isoneotypes, BR, K, MO, P).

Tree up to 30 m high, trunk to 20 cm diam., sometimes with buttresses or buttress-shaped stilt-roots. Leaves: petiole up to 2 cm long; blade oblong-elliptic to oblong-obovate, up to 30 × 9 cm, coriaceous, glabrous, often with glands on the margin; young leaves wine-red, glabrous at first sight but with many very small two-armed hairs beneath; 7–15 pairs of main lateral nerves; apex acuminate. Inflorescence in the leaf-axil or subcauliflorous, subumbellate, rachis up to 2.5 cm long but usually much smaller, almost glabrous. Bracts 1–2 mm long, persistent. Pedicel 4–7 mm long. Receptacle ca. 3 mm high and 4 mm diam., almost glabrous, pale green to brown-green. Calyx lobes ciliate. Petals orbicular, 3–4 mm diam., ciliate with very small hairs, otherwise glabrous, white. Stamens exerted for ca. 4 mm; anthers ca. 1.5 mm long, without septa, pale yellow. Style exerted for ca. 5 mm, white. Fruit up to 7 cm diam., brownish, pustulate.

*Additional specimens examined.* NIGERIA. Along Calabar–Atimbo road, 4°57'N, 8°22'E (fl. Sep.), *Daramola*

*et al. FHI 76937* (K); Oyi River banks (ster.), *Latilo FHI 30952* (K); Eket, 4°39'N, 7°55'E (fl.), *Talbot s.n.* (BM). CAMEROUN. Kumbe Dene Waterfall (fl. Feb.), *Babute 18* (FHO); Mbouge bush (fl. Feb.), *Babute 20* (FHO); Bityé, Dja River 50 km ENE of Sangmélima (fl.), *Bates 993* (BM), (fl.), *Bates 1726* (P); Ebolowa (fl.), *Bates 1968* (BM, BR, MO); 7.5 km S of Kribi (fl. Nov.), *Bos 3193* (BR, K, MO, P, WAG); 8 km from Kribi, 2°54'N, 9°57'E (fl. Nov.), *Bos 3396* (BR, K, MO, P, WAG); 4–5 km E of Kribi (fl. Oct.), *Bos 5449* (BR, MO, P, WAG); 5 km SE of Kribi (fl. fr. juv. Mar.), *W. de Wilde et al. 2098* (WAG); Takamanda Forest Reserve, near Mbilishe, 6°13'N, 9°24'E (fr. Apr.), *Doumenge 414* (MO); Tissongo, Douala-Edea Forest Reserve (fl. July), *Eartlan 1977–2* (E, K); near Douala (fr. June), *Fleury in Chevalier 33185* (P); Edoup, Yaoundé region (ster.), *Fleury in Chevalier 33365* (P); 20 km SE of Douala (fr. Aug.), *Leeuwenberg 6479* (MO, P, WAG); 5 km NE of Douala, 4°04'N, 9°43'E (fl. May), *Letouzey 14936* (BR, K, P); Ndian River, 20 km SW of Mundemba (fl. June), *Letouzey 15159* (BR, P); (Victoria =) Limbe, 4°01'N, 9°12'E (fl. May), *Maitland 1145* (K); Tissongo (fr. Aug.), *McKey & Eartlan 174* (K); Mbu Bakundu, Mamfe road, 5°02'N, 9°19'E (fr. Jan.), *Nemba & Mambo 713* (MO); Mivini, 33 km W of Nyabessan, ca. 2°30'N, 10°15'E (fl. Dec.), *Nkongmeneck 451* (BR); Douala Edea Reserve, near Lake Tissongo (fl. Jan.), *Thomas 289* (K); Korup Reserve, Ndium River bank (fl. Apr.), *Thomas 362* (K); banks of the Ndian River, between Bulu and Last Banana, 4°53'N, 8°47'E (fl. July), *Thomas 2348* (P, WAG); near Mundemba, 4°57'N, 8°54'E (ster.), *Thomas 6806* (MO); Douala Edea Reserve, Lake Tissongo (ster.), *Waterman & McKey 820* (K). GABON. Rabi area, ca. 1°55'S, 9°50'E (fl. Mar.), *Breteler et al. 9439* (WAG), (fl. y fr. Mar.), *Breteler et al. 9518* (WAG), (fl. Apr.), *Breteler et al. 9707* (WAG); Rabi area, Lake Divangui (fr. Oct.), *Breteler et al. 10266* (WAG); near Libreville, ca. 0°23'N, 9°27'E (fl. May), *Fleury in Chevalier 33690* (P); Ivindo River, Chutes du Kongué, 0°20'N, 12°42'E (fl. bud Dec.), *Hladik 1896* (P); Dighaba (fl. Jan.), *Le Testu 2317* (P); Bitam, 2°07'N, 11°28'E (fl. Mar.), *Le Testu 9024* (BM, BR, HBG, P, WAG), (fl. Mar.), *Le Testu 9038* (BM, BR, P); Evorombil, 2°10'N, 12°05'E (fl. Aug.), *Le Testu 9250* (BM, BR, MO, P); Oyem, 1°37'N, 11°36'E (fl. June), *Le Testu 9607* (HBG, K, MO, P); Minvoul, 2°09'N, 12°07'E (fl. bud Oct.), *Louis 1919* (WAG); Gabon River (fl.), *Mann 945* (P); Ofoubou River bassin (fl.), *Reitsma 3754* (WAG); bassin (ster.), *Reitsma OF 2–48* (WAG); Fernan Faz, 1°35'S, 9°17'E (fr. Oct.), *Walker 95* (P, WAG); Minkebé, ca. 1°30'N, 12°49'E (ster.), *Wilks E 115* (WAG). CONGO. Zanaga Distr. (ster.), *Sita 3217* (IEC); Zanaga Distr., near Bikolo and Kimbembé aux rives Lulali, ca. 2°50'S, 13°50'E (ster.), *Sita 3241* (IEC).

*Ecology.* Riverine and swamp forest in rainforest areas, up to 600 m altitude. Flowering and fruiting throughout the year.

*Note.* This species is very uniform throughout its geographic range. It can be locally common to dominant in swamp forest.

***Strephonema pseudocola*** A. Chevalier, Bull. Soc. Bot. France 58: 172. 1912. TYPE: Ivory Coast. Cavally Valley, Prolo, 4°26'N, 7°32'W (fl. Aug.), *Chevalier 19870* (lectotype, designated here, P).

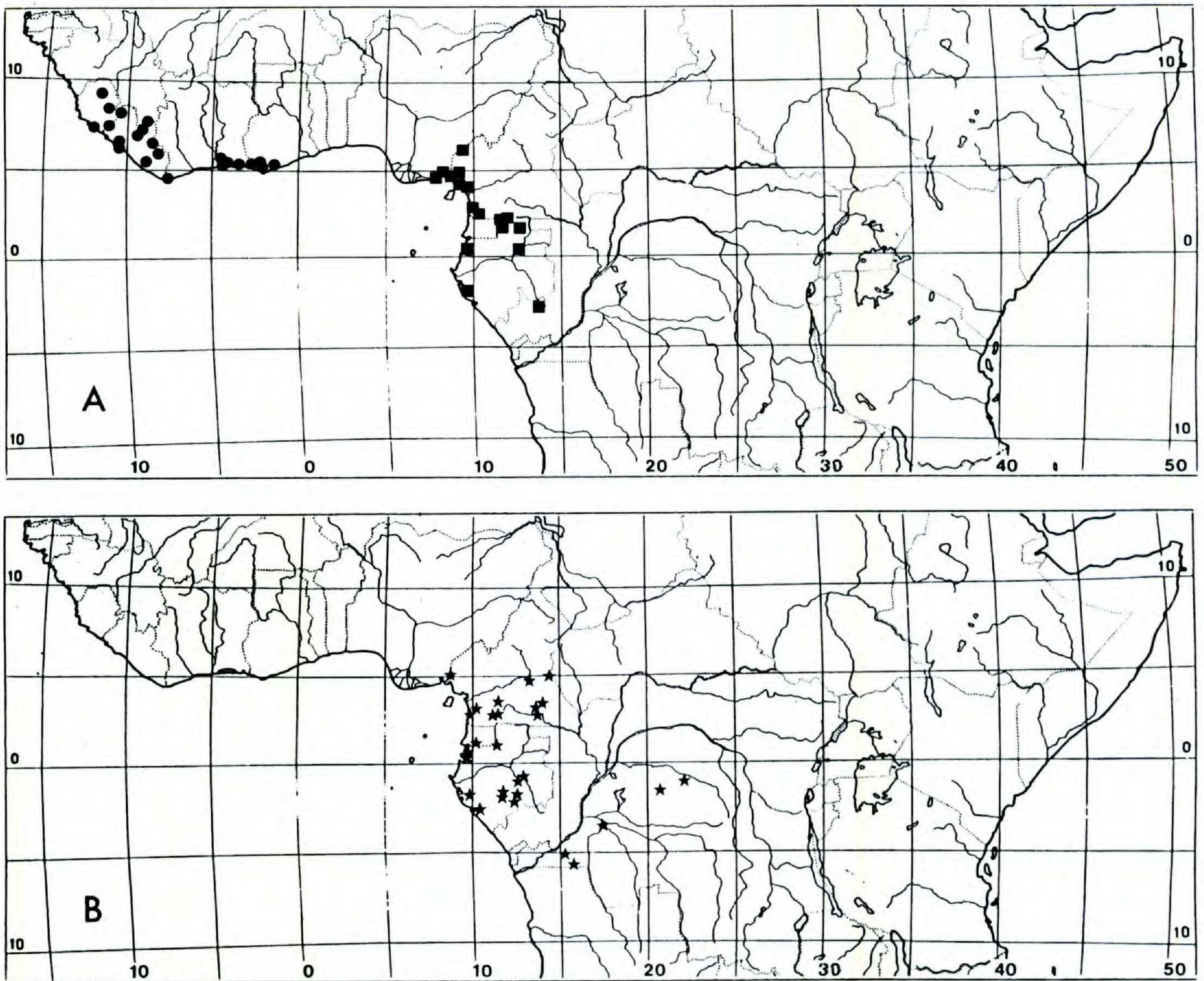


FIGURE 1. Geographic distribution of *Strephonema* species.—A. (●) *Strephonema pseudocola* A. Chev. (■) *Strephonema mannii* Hook. f.—B. (★) *Strephonema sericeum* Hook. f.

*Strephonema apolloniense* J. J. Clark, Kew Bull.: 76. 1913.  
TYPE: Ghana. Nkwanta, W Apolloniense, 5°17'N, 2°38'W (fl Aug.), Chipp 332 (holotype, K; isotype, BM).

Tree up to 25 m high and 25 cm DBH, but already flowering when 4 m high. Bark gray. Exudate clear and slimy, appearing some time after slashing. Leaves: petiole up to 1.5 cm long; blade oblong-obovate, up to 40 × 12 cm, glabrous or locally with remnants of indumentum, often with glands on the margin; 8–18 pairs of main lateral nerves; very young leaves totally covered with two-armed hairs; apex acuminate. Inflorescence scarcely branched, rachis up to 12 cm long, covered with two-armed hairs. Bracts 3–4 mm long. Pedicel 2–6 mm long. Receptacle 6–8 mm high and 5–7 mm wide, pubescent, brown-green. Calyx lobes 2–3 mm long. Petals obovate, 5–7 × 3–4 mm, ciliate along the margin, white. Stamens exserted for ca. 10 mm; filaments white; anthers oblong-ovate in outline, 1.5–2 mm long, with many septa, yellow. Style exserted for ca. 15 mm. Fruit 4–6.5 × 3–4.5 × 2.5–4 cm,

brown, lenticellate, calyx lobes often still clearly visible near the base of the fruit, cotyledons red.

*Additional specimens examined.* GUINEA. Nzérékoré area, Douhoueta (ster.), Adam 3850 (MO); near Nzérékoré, ca. 7°45'N, 8°49'W (fl Sep.), Jacques-Felix 1111 (P). SIERRA LEONE. Mt Loma (ster.), Adam 22842 (MO); Baiima (fl Sep.), Deighton 3055 (BR, K, P); Nimini S Forest Reserve, ca. 8°30'N, 11°08'W (fl bud Aug.), Fox 168 (K); Loma Mts., near Nama Dji (seedling), Jaeger 1846 (P, WAG); between Kondembaya and Kauda, ca. 9°23'N, 11°34'W (ster.) Jaeger 7510 (P); Kambui Forest Reserve, Waanje Valley, ca. 7°18'N, 12°08'W (ster.) King 52 (K); Bo–Bumpe road, ca. 5 mi. from Bo (fr) Morton & Jarr SL 1696 (GC, WAG); Nimini S Forest Reserve (fl Aug.) Samai 370 (K); Kambui Hill Reserve, ca. 7°35'N, 11°06'W (ster.) Wallace 113 (FHO). LIBERIA. Mt. Nimba (fl Oct.) Adam 25046 (MO); Mèkepa area, Granfield (ster.), Adam 25165 (MO); between Nimba and Yéképa, ca. 7°32'N, 8°33'E (fl Sep.) Adam 26145 (MO, P); Mt. Nimba (ster.), Adam 28561 (MO); Tchien area, Pine town (fr Nov.), Adam 30315 (MO); Browntown, Tchien (fl Aug.), Baldwin 7083 (K); Tchien Distr., Monroviatown (fl Aug.), Baldwin 8007 (K, MO); Tapeta, 6°29'N, 8°51'E (fl Aug.), Baldwin 9116 (K); Karmadhun = Kamatahum, ca. 8°13'N, 10°14'W (fl Nov.), Baldwin 10203 (K); Grand Cape Mount Co.: Mecca,

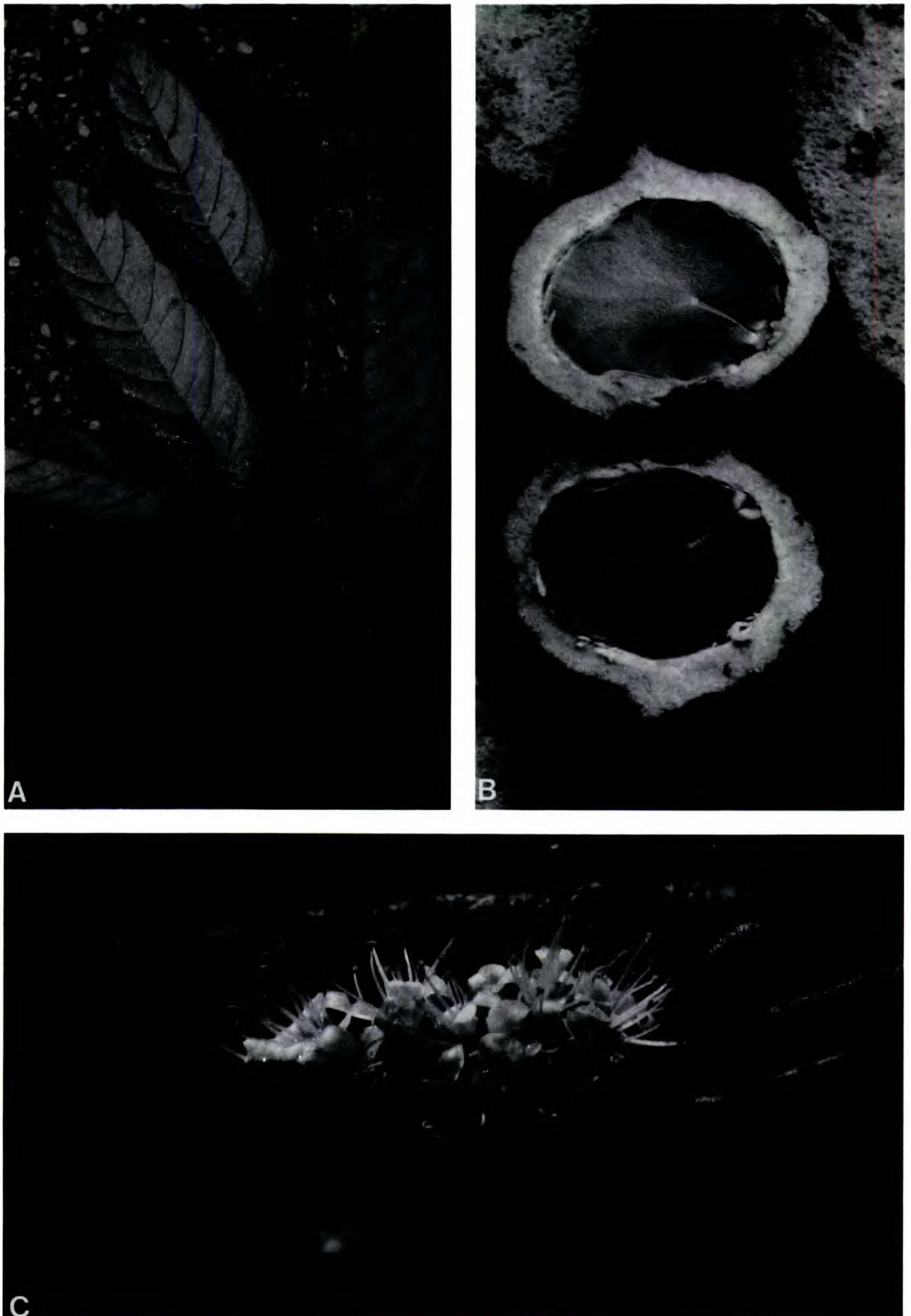


FIGURE 2.—A. *Strephonema sericeum* Hook. f., leaves. B, C. *Strephonema mannii* Hook. f.—B. Cross section of fruit, showing the two planoconvex cotyledons.—C. Inflorescence.

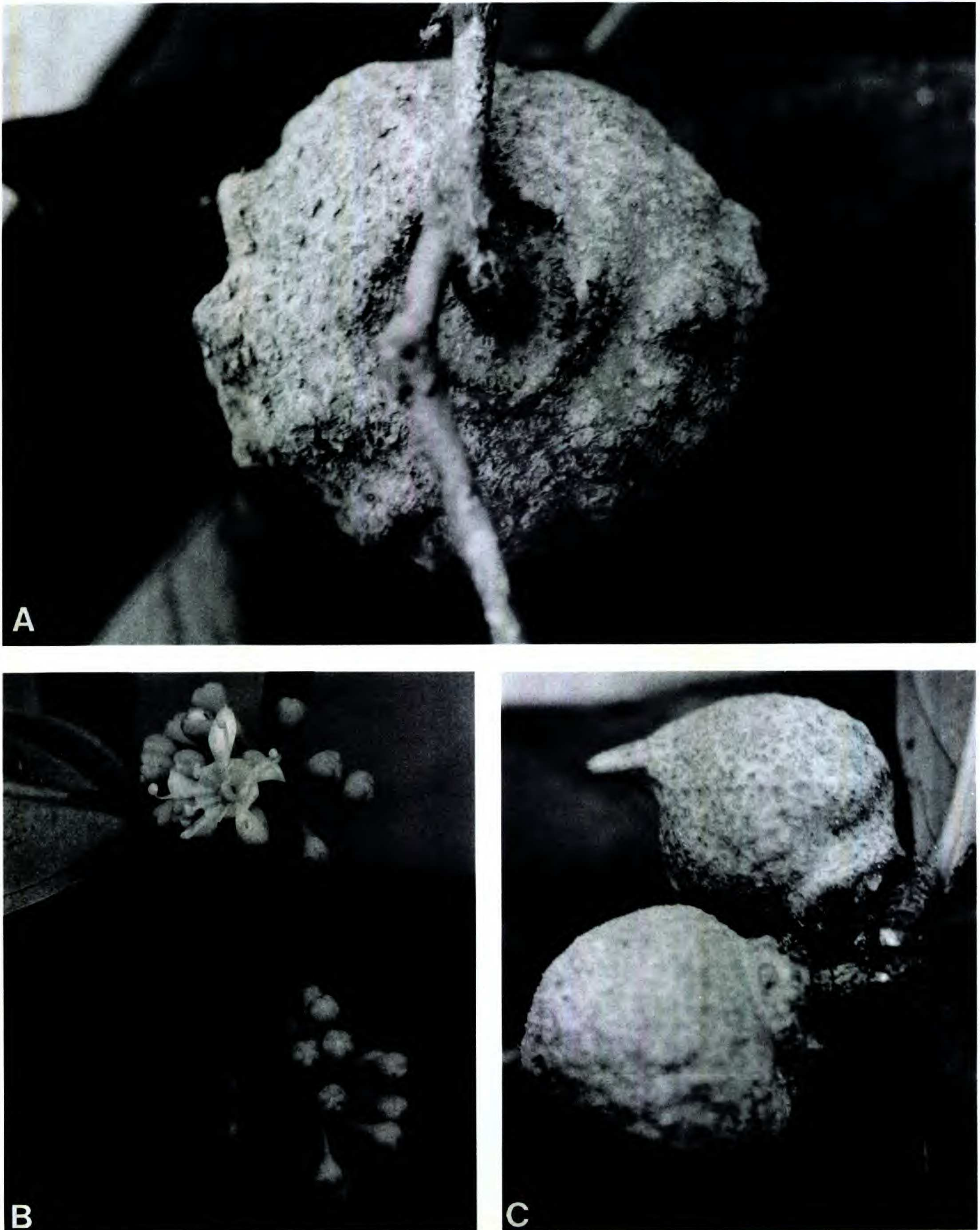


FIGURE 3. A, B, C. *Strephonema mannii* Hook. f.—A. Fruit showing the remnants of the receptacle located around the stipe.—B. Inflorescence with flower buds and one open flower.—C. Young fruits with calyx lobes still green and clearly visible.

6°43'N, 10°39'W (ster.), *Baldwin 10831* (K); Lofa River (fr Dec.), *Baldwin 10947* (K); Dukwia River, ca. 6°14'N, 10°32'W (fr Nov.), *Cooper 121* (BM, FHO, K); Ganta, 7°14'N, 8°59'W (fl Oct.), *Harley 1020* (K); Kitoma, 7°19'N, 8°46'W (fr), *Harley 1124* (K, WAG); Tapeta (fl

July), *Jansen 905* (WAG); Gbarnga, 7°00'N, 9°29'W (fl Sep.), *Linder 767* (K, P); Tchien, 6°04'N, 8°08'W (fr juv. Oct.), *Versteegh & Jansen 808* (BR, MO, WAG). IVORY COAST. Banco Forest (ster.), *Aké Assi 13752* (K); Abidjan (ster.), *Aubréville 61* (BR, FHO, K, P), (fl) *Aubréville 128*

(BR, K, P); Boto (fr Mar.), *Aubréville* 2060 (P); Teké forest, 5°33'N, 4°03'W (fr Feb.), *Bamps* 2064 (BR, K, P, WAG); Bébasso Forest (fr Feb.), *Bamps* 2437 (BR, K); region Bingerville, Abidjan, Dabou, ca. 5°20'N, 4°20'W (fl), *Chevalier* 15235 (P), (fl) *Chevalier* 15454 (P), (fl) *Chevalier* 15524 (P), (fl) *Chevalier* 15570 (P); Agnéby Valley, Mbago (fr Feb.) *Chevalier* 16189 (P); Alipé (ster.) *Chevalier* 17485 (P); 3 km N of Sikenssi, 5°40'N, 4°34'W (fr Jan.) *de Koning* 137 (WAG); Banco Forest NP (fl Aug.) *de Koning* 2069 (WAG), (fr Nov.) *de Koning* 2808 (WAG), (fr Dec.) *de Koning* 2897 (WAG); cult. ORSTOM (seedling), *de Koning* 3530 (WAG), (seedling) *de Koning* 3800 (WAG), (seedling) *de Koning* 5660 (WAG); Banco Forest (fr), *de Koning* 6443 (WAG); km 30 on new road Abidjan-Ndouci, 5°28'N, 4°14'W (fl Aug.) *de Kruif* 311 (WAG); Anguédedou forest, near Abidjan (fl Sep.) *J. de Wilde* 291 (WAG); Banco Forest NP (fr Jan.) *de Wit* 9055 (WAG); M. Vizios concession (fr Dec.) *Fleury* in *Chevalier* 33043 (P); Banco (fl Jan.) *Martineau* 313 (P); between Aboisso and Bonoua, ca. 5°22'N, 3°24'W (fl Sep.), *Thijssen* 283 (WAG); 20 km W of Abidjan (fl Aug.) *Versteegh & den Outer* 667 (WAG). GHANA. Kakum Forest Reserve, ca. 5°25'N, 1°20'W (fl bud July), *Andoh* 5736 (BM, BR, FHO); Neung Forest Reserve, ca. 5°08'N, 2°00'W (fr Jan.), *Enti Sp* 500 (BR, MO); Aiyinasi to Mpataba road (fr Dec.), *Enti & Hall GC* 36151 (FHO, GC); Simpa (ster.), *Vigne* 2772 (FHO); near Prestea, ca. 5°26'N, 2°09'W (fr Sep.) *Vigne* 3090 (FHO, GC).

**Ecology.** Rainforest. Flowering and fruiting between July and February.

**Note.** When he published *S. pseudocola*, Chevalier selected two types, one for the flowers and one for the fruits. Here the flowering syntype is selected for the lectotype.

***Strephonema sericeum*** Hook. f., in Benth. & Hook., Gen. Pl. 1: 782. 1867. TYPE: Equatorial Guinea. Muni River (fl Aug.), *Mann* 1753 (holotype, K; isotype, P).

*Strephonema polybotryum* Mildbraed, Engl. Bot. Jahrb. 51: 356. 1914. TYPE: Cameroun. 22 km E of Ebolowa, 2°56'N, 11°22'E (fl June), *Mildbraed* 5645 (holotype, B destroyed; lectotype, designated here, HBG; fragment, BR).

*Strephonema gillettii* De Wildeman, Bull. Brux. 8: 119, tab. 3: figs. 1–5. 1923. TYPE: Zaire. Botanical garden of Kisantu (fl bud May), *Gillet s.n.* (holotype, BR; isotype, P).

*Strephonema klaineana* Pierre, nomen on drawing of *Klaine* 288 = *Pierre* 6423, ca. anno 1900.

Tree up to 45 m high and 350 cm diam., often with 5–6 buttresses ca. 1 m high. Bark brown-red, without exudate, up to 10 mm in diam. Leaves: petiole up to 2 cm long; blade elliptic to oblong-obovate, 5.5–25 × 2–9 cm, papery to coriaceous, glabrous or locally with appressed two-armed hairs beneath, margin often reflexed, with or without glands on the margin; young leaves reddish, totally covered with appressed two-armed hairs; 5–17 pairs of main lateral nerves, sometimes hardly vis-

ible; apex acuminate to long acuminate. Inflorescence branched, rachis up to 5 cm long, appressed pubescent. Bracts ca. 3 mm long, often early caducous. Pedicel 2–10 mm long. Receptacle 3–5 mm high and 4–5 mm wide, hairy. Petals obovate, 3–4 × 2–3 mm, ciliate along the margin with long hairs otherwise glabrous, white. Stamens exerted for 4–5 mm; filaments white; anthers 0.5–1 mm long, septate or not, yellow. Style exerted for ca. 7 mm, greenish white. Fruit up to 7 cm diam., irregular globular, brown warty.

**Additional specimens examined.** CAMEROUN. 6 km from Kribi, 2°54'N, 9°57'E (fr Nov.), *Bos* 3358 (WAG); Hill above N'Kolandom, 2°48'N, 11°10'E (fl Nov.), *J. de Wilde* 7713 (WAG); close to N'Kolandom (fl Apr.), *J. de Wilde* 8161 (WAG); near Mbalmayo, ca. 3°31'N, 11°30'E (ster. Apr.), *Letouzey SRFK* 1277 (P); S of Dimako, ca. 5°02'N, 14°23'E (ster.), *Letouzey* 2671 (P); Nika, 4°36'N, 13°13'E (ster. Jan.), *Letouzey* 2843 (P); just NW of Eschienenbot, 3°08'N, 13°46'E (ster.), *Letouzey* 3682 (P); near Bella, 45 km NE of Kribi, ca. 3°10'N, 10°10'E (ster. Jan.), *Letouzey* 4154 (P); between Mpan and Badekok, 50 km E of Lomie, ca. 3°19'N, 14°01'E (ster. Aug.), *Letouzey* 5618 (P); Dja River, 5 km WSW of Zoulabot 2, 2°53'N, 13°52'E (ster.), *Letouzey* 11913 (P); Ebolowa (fl), *Mildbraed* 7629 (K); Exploitation forestière de Dimako (fl bud), *Rérolle* 10 (P); Korup NP, 5°01'N, 8°50'E (fr juv. Mar.), *Thomas* 4585 (MO); Lombe Study area, Tissongo, Douala-Edea Forest Reserve, ca. 3°35'N, 9°54'E (fr June), *Waterman & McKey* 827 (E, K). EQUATORIAL GUINEA. 3 km ESE of Okuamkos, 1°05'N, 10°10'E (ster.), *Wilks* 1723 (WAG), (fl June) *Wilks* 1725 (WAG). GABON. Sibang (fl Sep.), *Bernard SRF* 267 (P); ca. 30 km ENE of Lastoursville, ca. 0°40'S, 13°00'E (ster.), *Breteler et al.* 10620 (WAG); Rabi-Kounga River area (ster.), *Breteler et al.* 11502 (WAG), (ster. incl. wood sample) *Breteler et al.* 11552 (WAG); 18 km E of Libreville (fl Aug.), *De Saint Aubin s.n.* (P); 24 km SE of Cocobeach, ca. 0°45'N, 9°20'E (ster. Aug.), *De Saint Aubin SRF* 1939 (P); near Libreville, ca. 0°23'N, 9°27'E (fl July), *Klaine* 53 (BR, K, MO, P, Z), (fl Aug.) *Klaine* 165 (HBG, WAG), (fl July) *Klaine* 258 (BR, E, K, P), (fl July) *Klaine* 288 = *Pierre* 6423 (BM, BR, E, K, P), (fl) *Klaine* 329 (BR, HBG, K, P), (fl, fr July) *Klaine* 533 (P), (fl July) *Klaine* 1009 (P), (fl Aug.) *Klaine* 1305 (BR, P), (fl) *Klaine* 1915 (P, WAG), (ster.) *Klaine* 2649 (P), (fl July) *Klaine* 2967 (E, K, P), (fl July) *Klaine* 2987 (BM, K, P); UFO-Noyah (ster. Apr.), *Lachiver SRF* 1099 (P); Pagha, 1°34'S, 10°42'E (fl Nov.), *Le Testu* 5095 (BM, BR, MO, P, WAG); Bandi (fl Oct.), *Le Testu* 5570 (BM, BR, P); Benguémamba, 2°09'S, 12°18'E (fl June), *Le Testu* 6522 (BM, BR, P); Ndenga, 1°55'S, 11°47'E (fl July), *Le Testu* 6538 (BM, BR, MO, P, WAG); Sacamicanda, 1°02'S, 12°45'E (fl Dec.), *Le Testu* 7731 (K, MO, P); Minguembé, 1°45'S, 12°27'E (fl Apr.), *Le Testu* 8052 (BM, BR, MO, P, WAG), (fl Apr.) *Le Testu* 8054 (BM, BR, P, WAG); Banguidjoui, 1°35'S, 12°33'E (fl Apr.) *Le Testu* 8056 (BM, BR, P, WAG); Moucwala, 1°24'S, 12°14'E (fl Aug.), *Le Testu* 8222 (BM, BR, P, WAG); Ngango, 1°36'S, 12°25'E (fl May), *Le Testu* 8808 (BM, BR, K, P); Ngwa, 0°59'N, 11°20'E (fl May), *Le Testu* 9585 (BM, BR, P, HBG, WAG); Akia River bassin, affluent de Muni River (ster.), *Morel SRF* 58 (P); Atem–Ayong (ster.), *Reitsma CO-12-14* (WAG), (ster.) *Reitsma CO-15-11* (WAG); Doudou Mts., ca. 30 km SW of Doussala, 2°32'S, 10°29'E (fr juv. Feb.),

*Reitsma 1965* (MA, MO, WAG); Sibange (fl Aug.), *Soyaux 110* (K, P, Z); N of Rabi-Kounga, 1°47'S, 9°50'E (fl May), *Wieringa & Nzabi 1046* (WAG). ZAIRE. Ekwyelo (Bandundu), ca. 3°18'S, 17°21'E (fr Apr.), *Bolema 2886* (BR); Kisantu garden, venant marais de Boko Mfumu Disu, 5°02'S, 15°10'E (ster.), *Callens 2041* (BR); Bokota-Boseka, ca. 1°00'S, 22°08'E (fl bud), *Evrard 5660* (BR); Likete, 0°43'S, 21°24'E (fr June), *Ghesquiere 2762* (BR); s.l. (kiemplant) *Gillet s.n.* (BR); Kisantu, 5°08'S, 15°06'E (fr Oct.) *Louis 13304* (BR); Kilongo, forêt mar. (ster.), *Pauwels 470* (BR); Popokabaka Terr., Nto Mbomba, forêt marécageuse, 5°43'S, 15°51'E (ster.), *Pauwels 3974* (BR).

*Ecology.* Rainforest up to 600 m altitude. Flowering and fruiting season probably different across its range.

*Note.* *Strephonema sericeum* is very variable in the indumentum of the inflorescence and flowers and in the shape of the leaves. However, attempts to recognize taxonomic entities on the basis of these differences were unsuccessful.

The wide variation in the leaf shape of material previously placed in *S. polybotryum* has caused much confusion. Letouzey collected many specimens of this species in Cameroun with variously shaped leaves, of which the largest are many times larger than the smallest. He mentioned, on notes in the Paris herbarium, as a possible cause for the these differences that the tree probably grows different sized leaves in different seasons. This idea is supported by the fact that almost all fertile collections have small leaves only.

The differences between *S. gilletti* and material incorrectly attributed to *S. pseudocola* by Liben (1968) in the Flore du Congo, were primarily based on leaf-shape and nervation, a difference that is not tenable. A collection made by Ghesquiere (*Ghesquiere 2762*), includes the two types of leaves from a single tree.

#### INCOMPLETELY KNOWN MATERIAL

*Strephonema spec. 1* (Jongkind); *Strephonema spec. 1*, Liben, Combretaceae. Flore du Congo du Rwanda et du Burundi: 4. 1968.

Flowers still unknown, leaf characters different from material of *S. sericeum* from Zaire.

*Specimens examined.* Zaire. Bokutu, ca. 0°15'N, 20°45'E (fr Sep.) *Dubois 530* (BR); Baringa on the Maringa, 0°45'N, 20°52'E (fr Oct.) *Evrard 5089* (BR).

*Note.* Without flowers it is not possible to assess with confidence whether this material is distinct from *S. sericeum*.

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